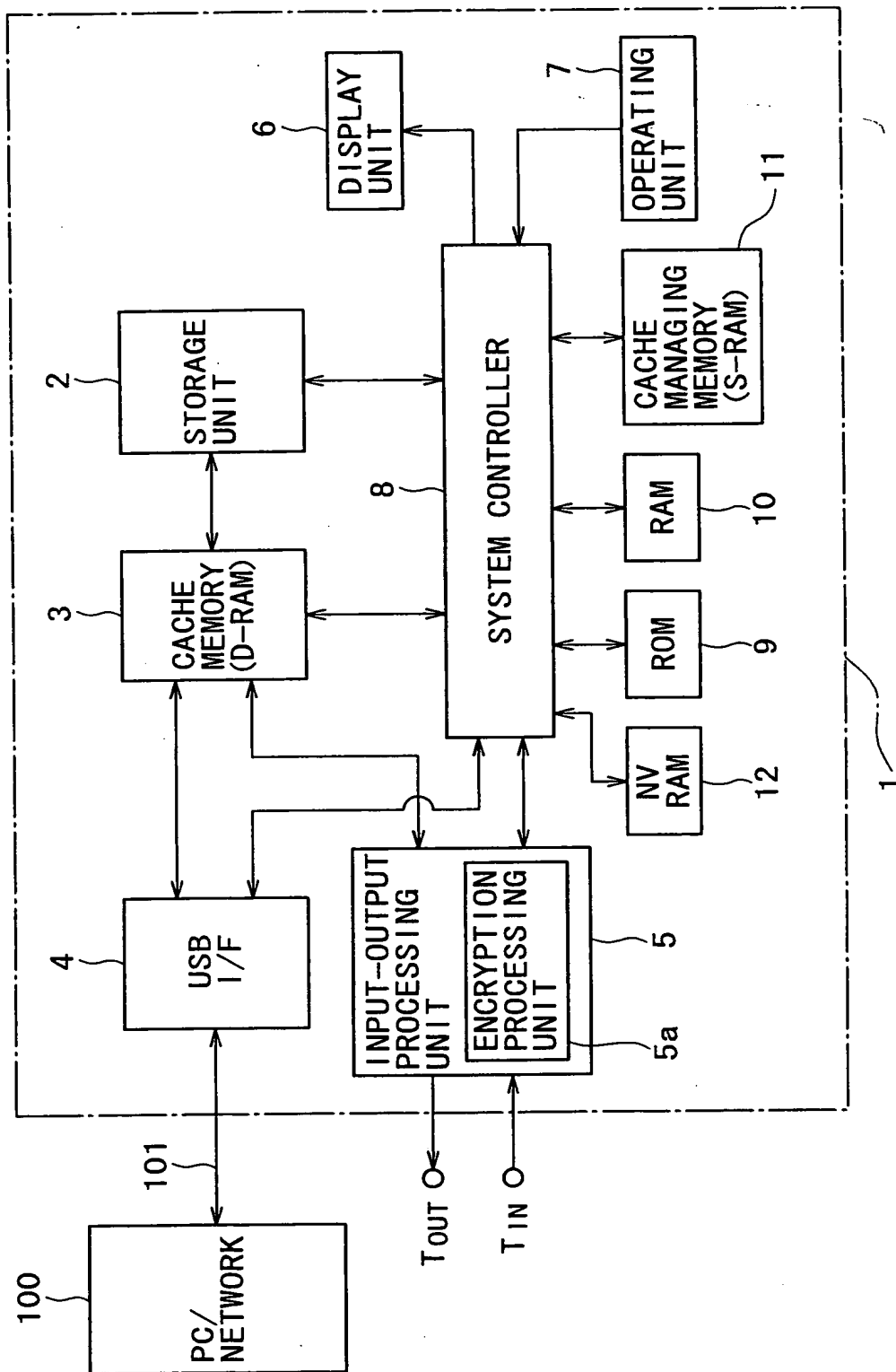


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FIG. 1



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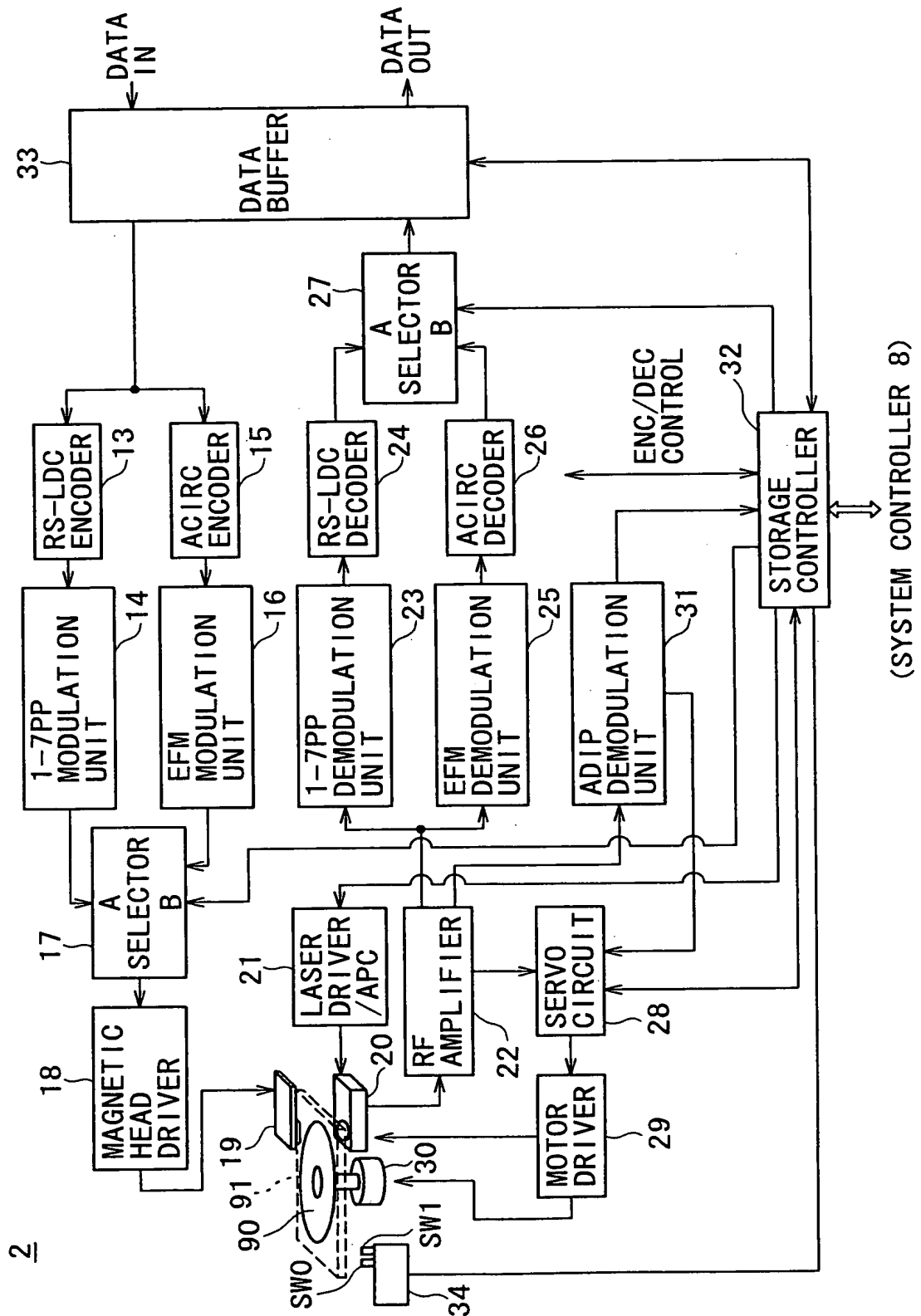
FIG. 2A

	REPRODUCTION-ONLY MD /RECORDING AND REPRODUCING MD
TRACK PITCH	1.6 $\mu$ m
BIT LENGTH	0.59 $\mu$ m/bit
$\lambda$ · NA	780nm · 0.45
RECORDING SYSTEM	GROOVE RECORDING
ADDRESSING SYSTEM	SINGLE SPIRAL BOTH-SIDE WOBBLE
MODULATION SYSTEM	EFM
ERROR CORRECTION SYSTEM	ACIRC
INTERLEAVE	CONVOLUTION
REDUNDANCY	46.3%
DETECTION SYSTEM	BIT BY BIT
LINEAR VELOCITY	1.2m/s
DATA RATE	133KB/s
TOTAL CAPACITY	164MB (140MB)
MINIMUM REWRITING UNIT	32 SECTORS + 4 LINK SECTORS

FIG. 2B

	HIGH-DENSITY MD TYPE A, B	HIGH-DENSITY MD TYPE C
TRACK PITCH	1.5~1.6 $\mu$ m	1.25 $\mu$ m
LINEAR DENSITY	0.437 $\mu$ m/bit	0.16 $\mu$ m/bit
CAPACITY	300MB	1GB
TRANSFER RATE	4.37Mbps	9.83Mbps
LINEAR VELOCITY	2.4m/sec	1.98m/sec

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FIG. 4

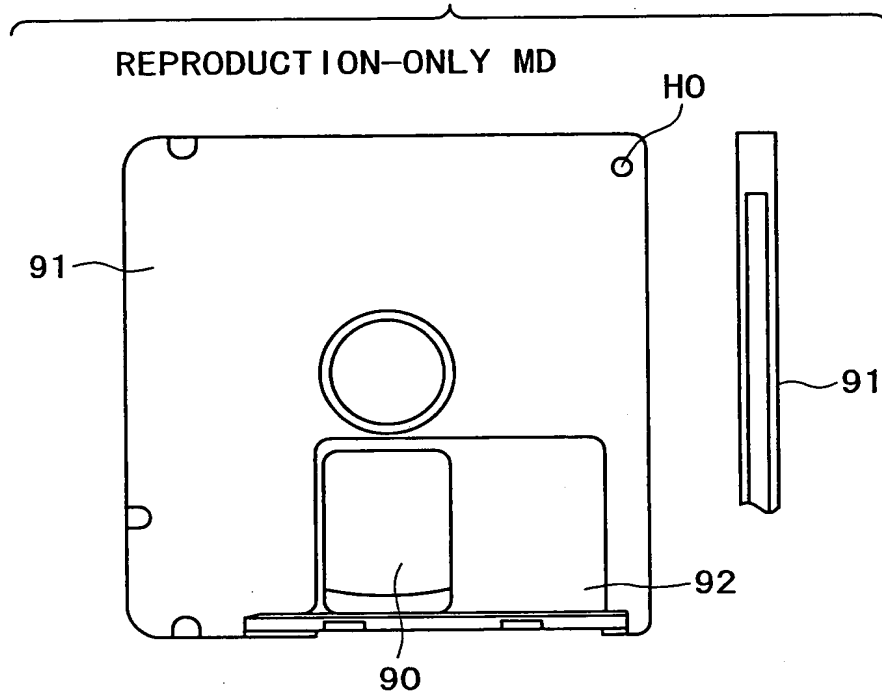
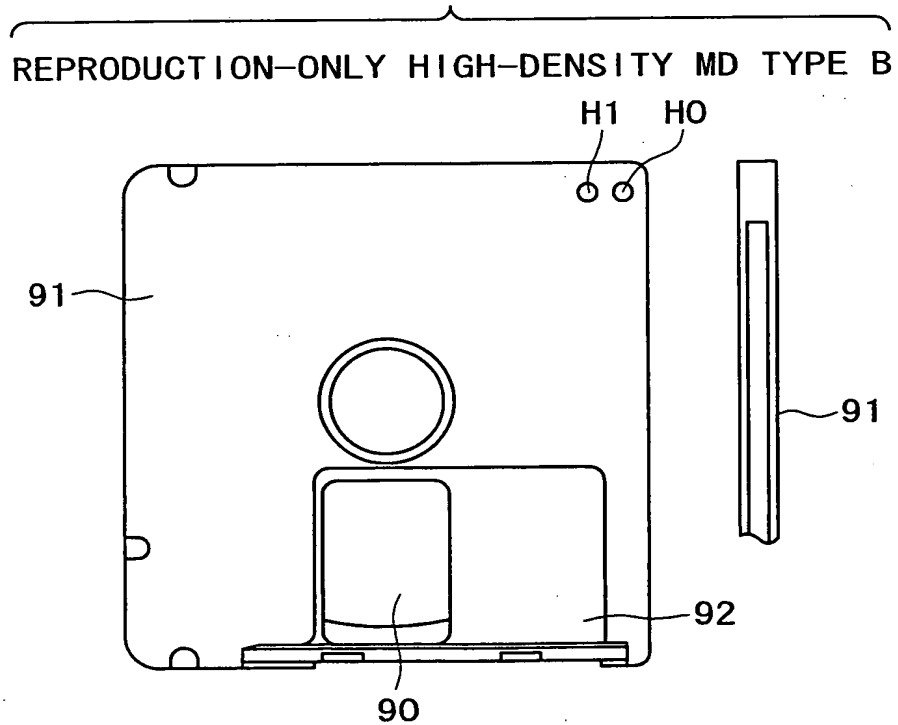


FIG. 5



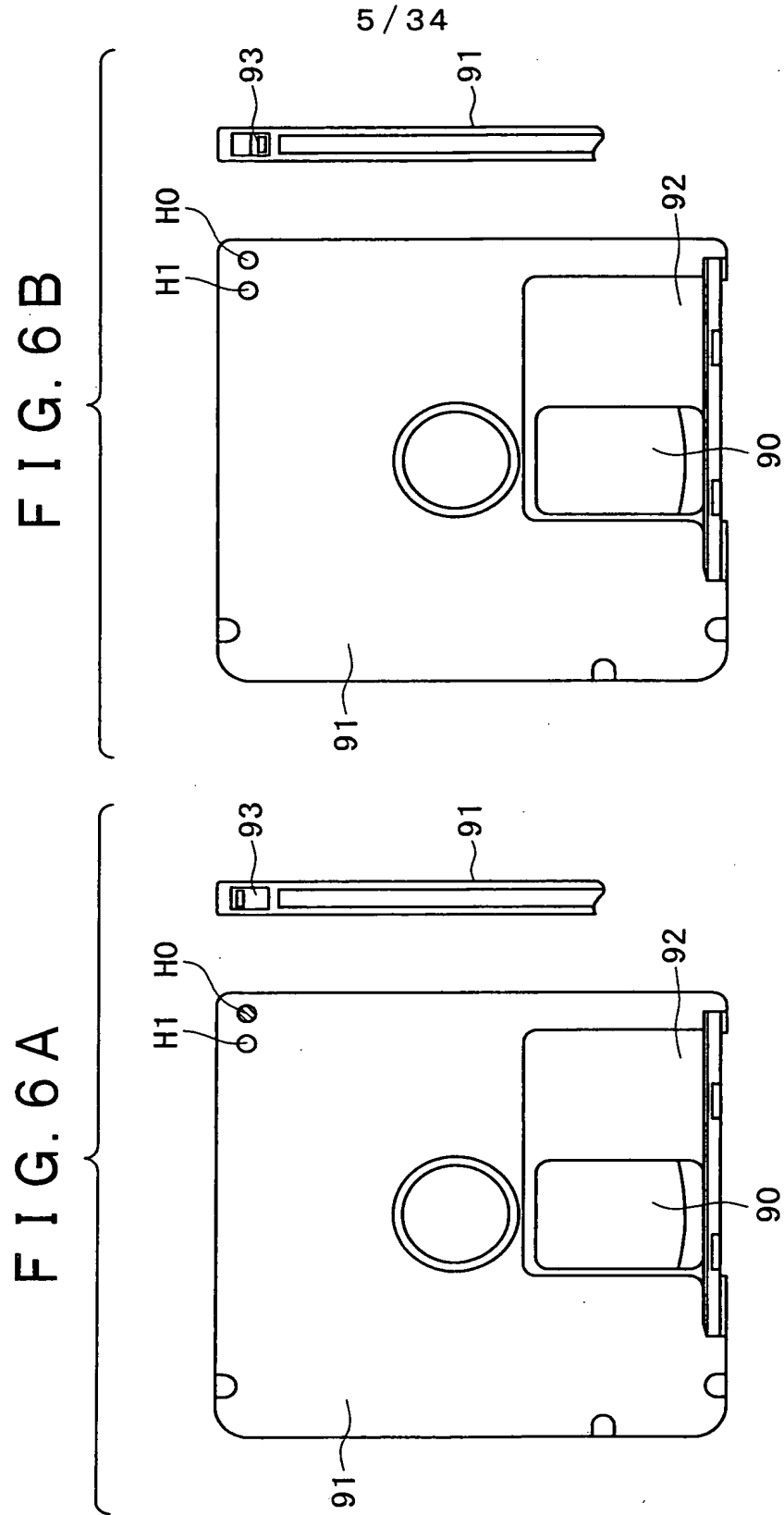


FIG. 7A

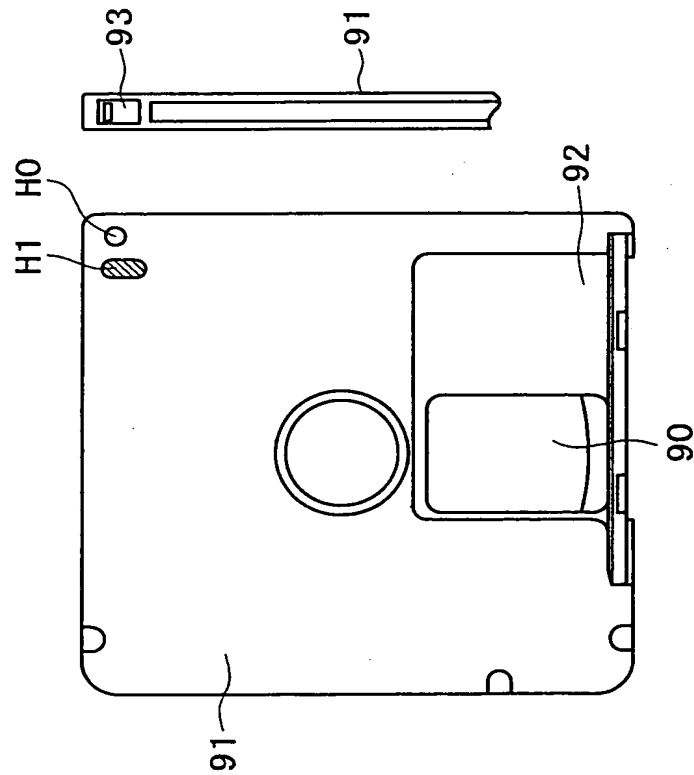
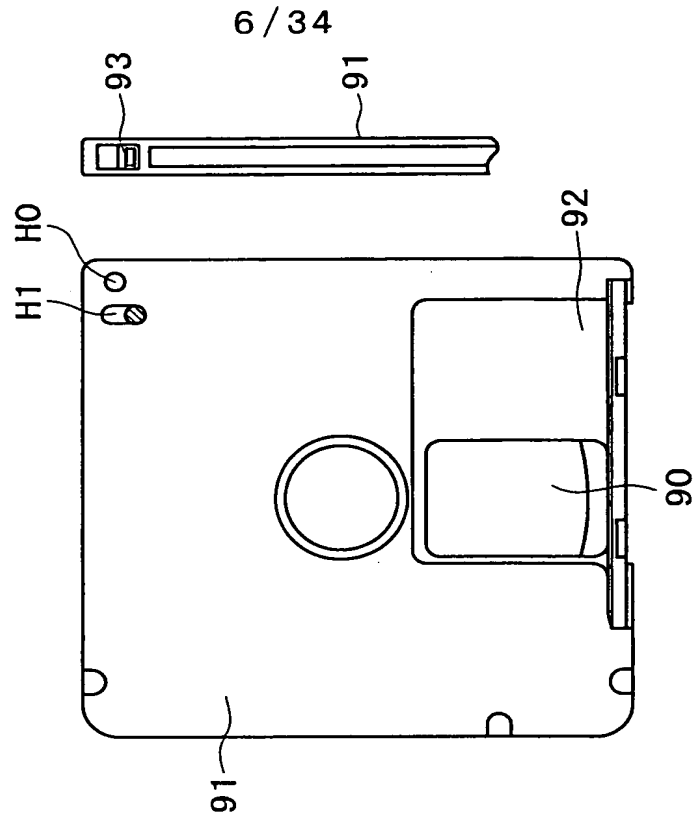


FIG. 7B



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FIG. 8C

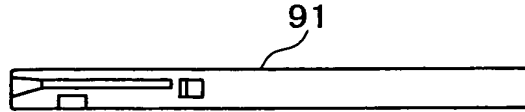
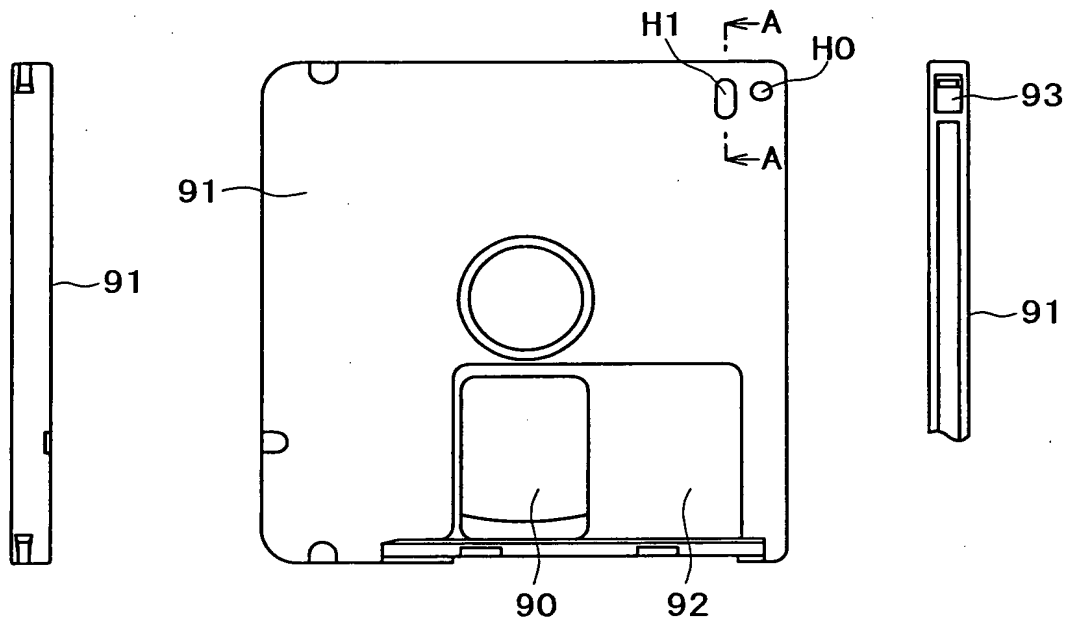
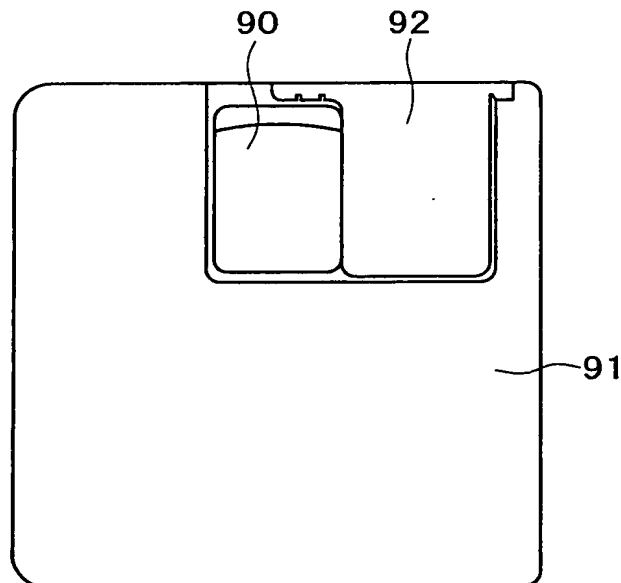


FIG. 8D      FIG. 8A      FIG. 8E



**FIG. 8B**



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FIG. 9A

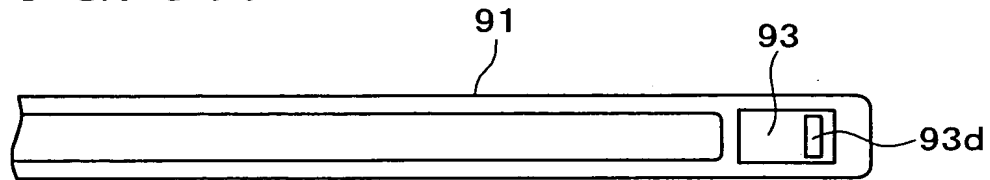


FIG. 9B

SECTION A-A

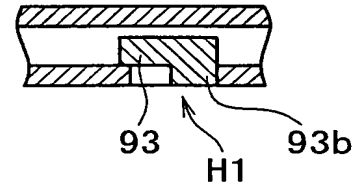


FIG. 9C

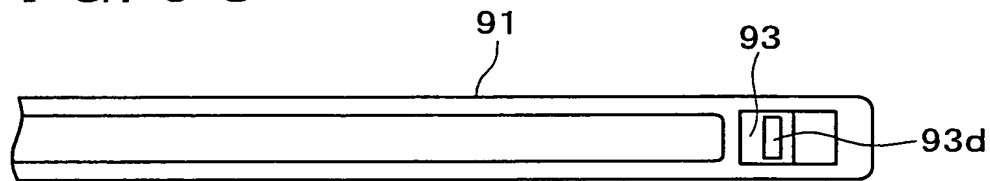
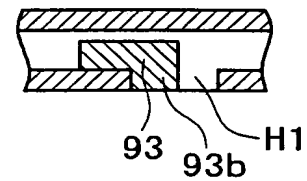


FIG. 9D

SECTION A-A





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FIG. 10A

<RECORDABLE>

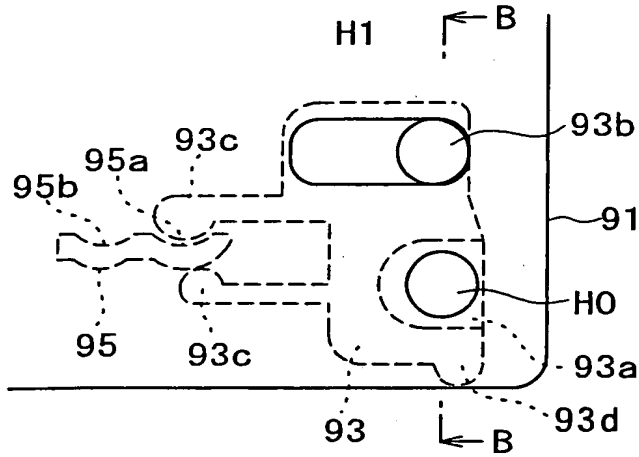


FIG. 10B

SECTION B-B

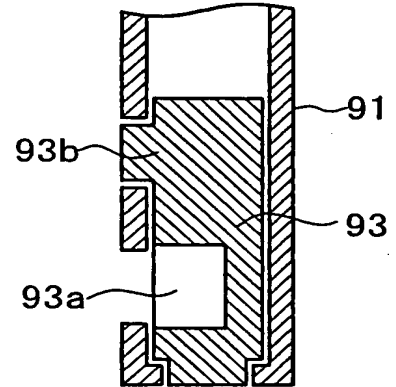


FIG. 10C

<NOT RECORDABLE>

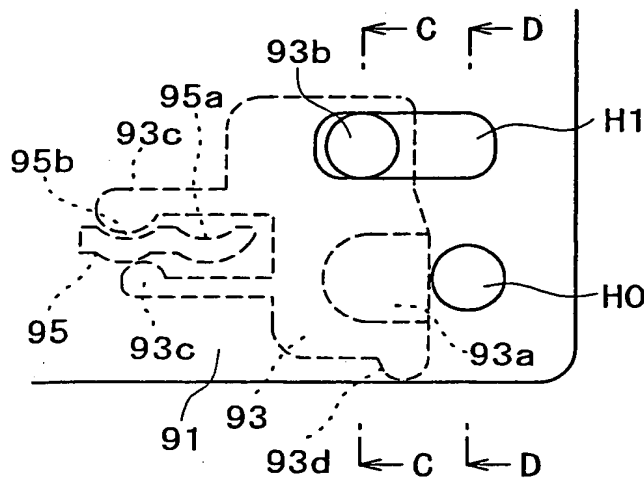


FIG. 10D

SECTION D-D

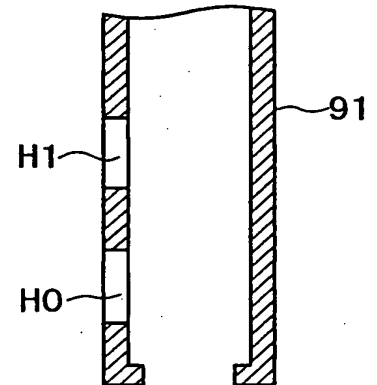
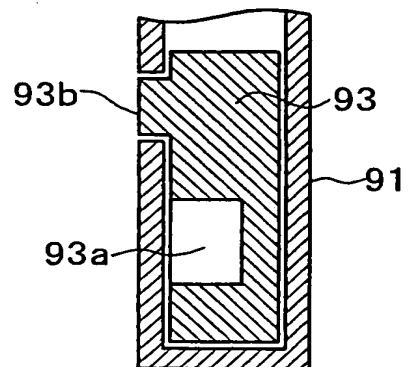


FIG. 10E

SECTION C-C



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HIGH-DENSITY MD TYPE B/TYPE C

FIG. 11A

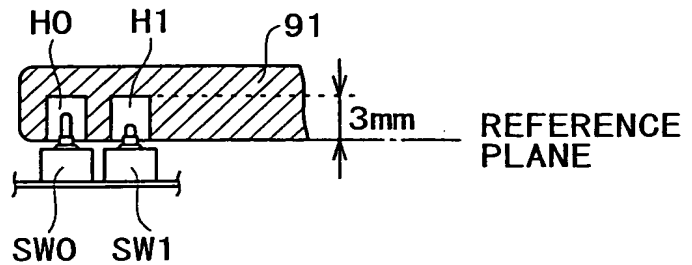
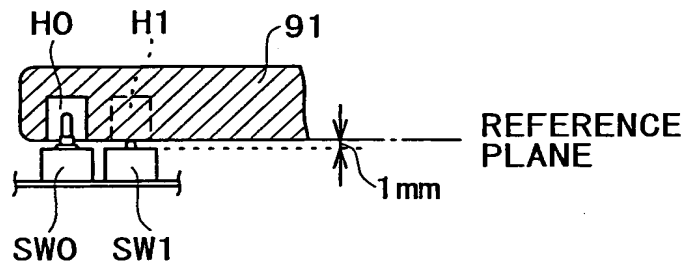
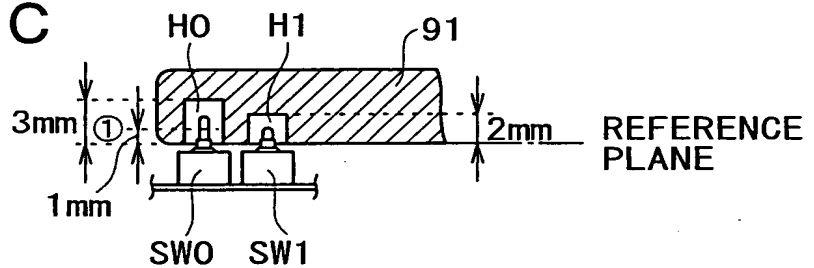


FIG. 11B



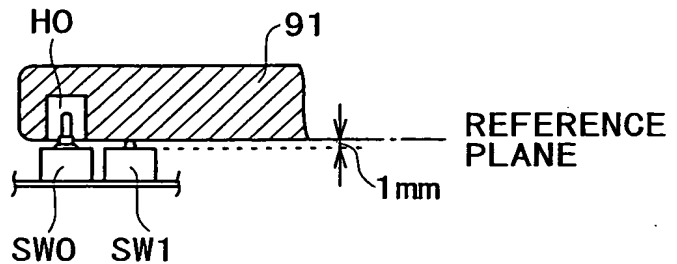
RECORDING AND REPRODUCING MD/  
HIGH-DENSITY MD TYPE A

FIG. 11C



REPRODUCTION-ONLY MD

FIG. 11D



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FIG. 12A

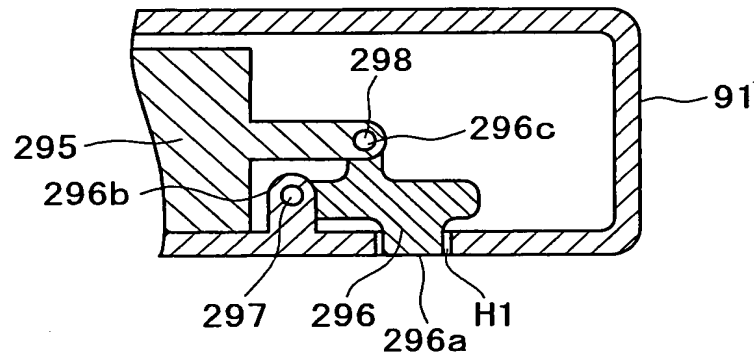
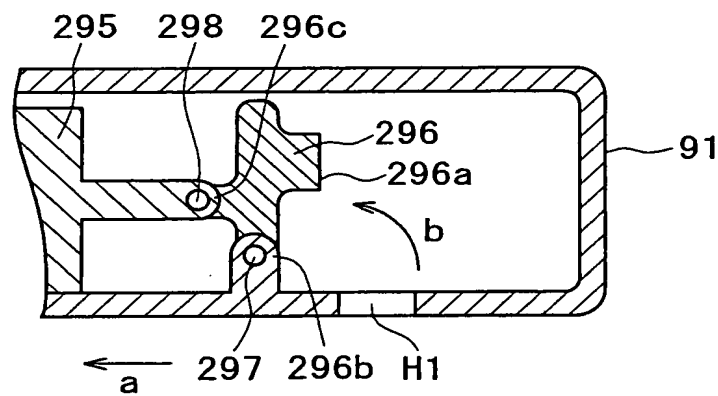


FIG. 12B



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FIG. 13 A

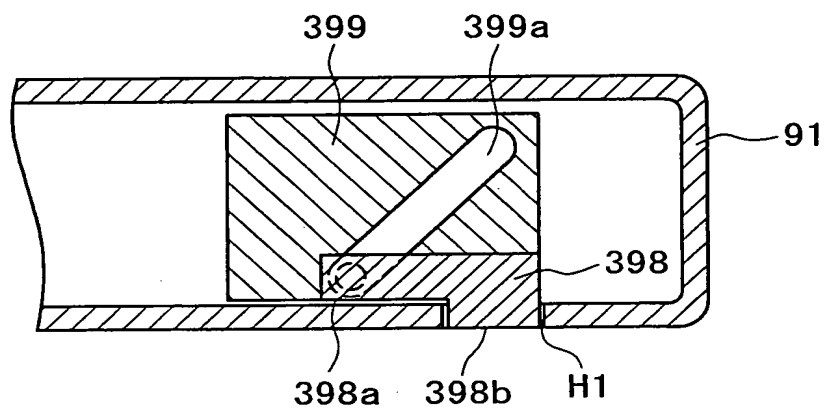
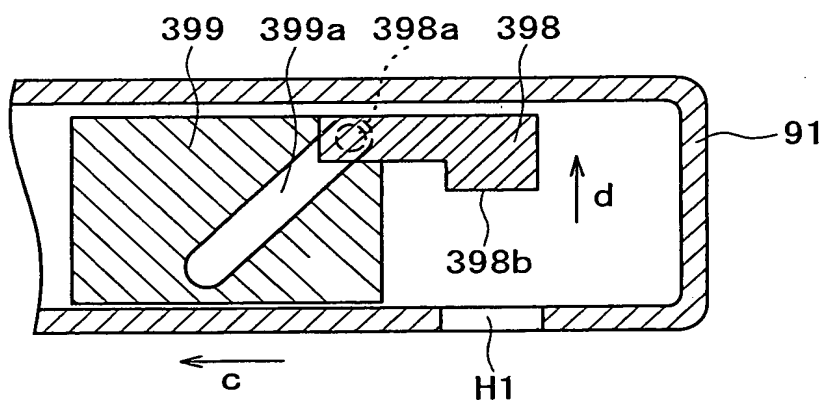


FIG. 13 B



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FIG. 14

REFLECTIVITY	GROOVE DEPTH (PHASE DIFFERENCE OF PULL-IN WITH RESPECT TO PUSH- PULL)	U-TOC "UMD"	P-TOC "UMD"	ADIP ECC/CRC C	BCA	DETECTION HOLE H0 SW0 O OPEN/● CLOSED	DETECTION HOLE H1 SW1 O OPEN/● CLOSED	WRITING ENABLED/ DISABLED
REPRODUCTION -ONLY MD	H	NO U-TOC	ABSENT	subQ CRC	ABSENT	O	●	DISABLED
REPRODUCTION-ONLY HIGH-DENSITY MD (TYPE B)		ABSENT	PRESENT	ADIP CRC	ABSENT	O	O	DISABLED
RECORDING AND REPRODUCING MD								
HIGH-DENSITY MD TYPE A	L	PRESENT	ABSENT	ADIP CRC	ABSENT	O	O	DISABLED
HIGH-DENSITY MD TYPE B		PRESENT	PRESENT	ADIP CRC	PRESENT "1.5"	O	O	DISABLED
HIGH-DENSITY MD TYPE C		NO U-TOC	NO P-TOC	ADIP ECC	PRESENT "3"	O	O	DISABLED
DISK TYPE DETER- MINATION METHOD	<1>	○	○			●	●	DOES NOT EXIST
	<2>	○	○	○				DETERMI- NATION IS POSSIBLE WITH ANY OF COMBINATIONS
	<3>	○	○		○		○	
	<4>	○	○			○	○	
	<5>	○	○		○			
	<6>	○	○					

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FIG. 15A

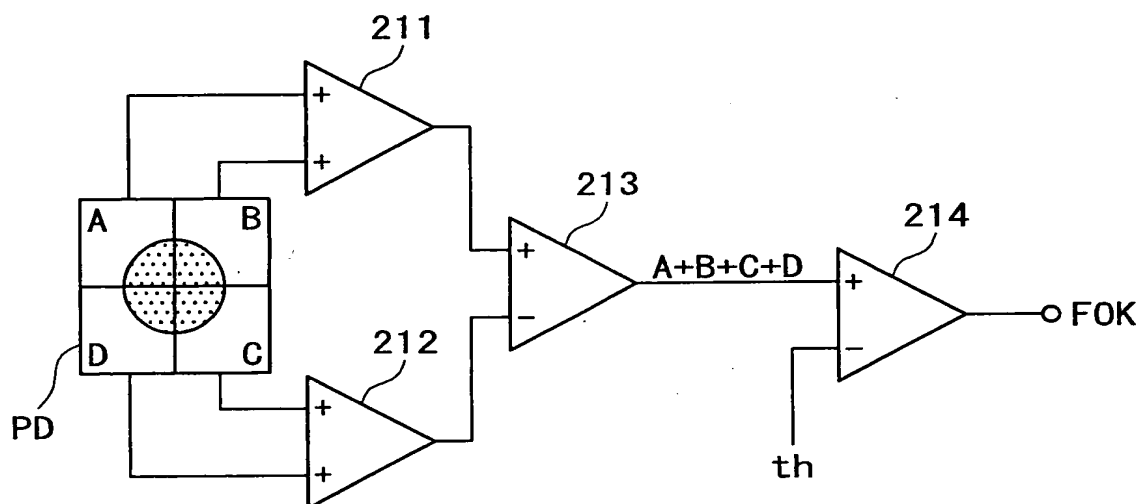


FIG. 15B

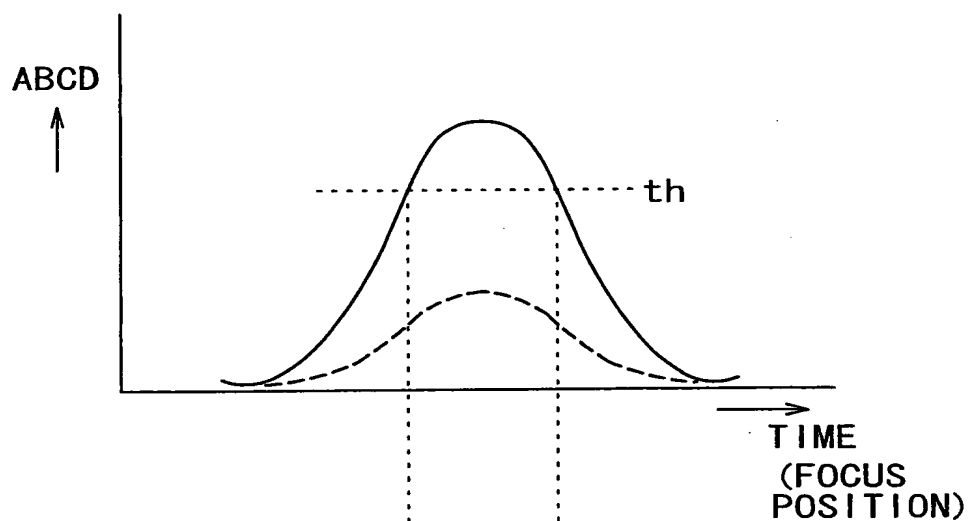
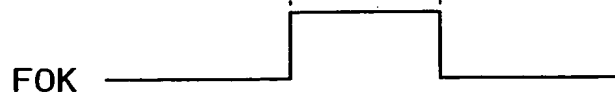
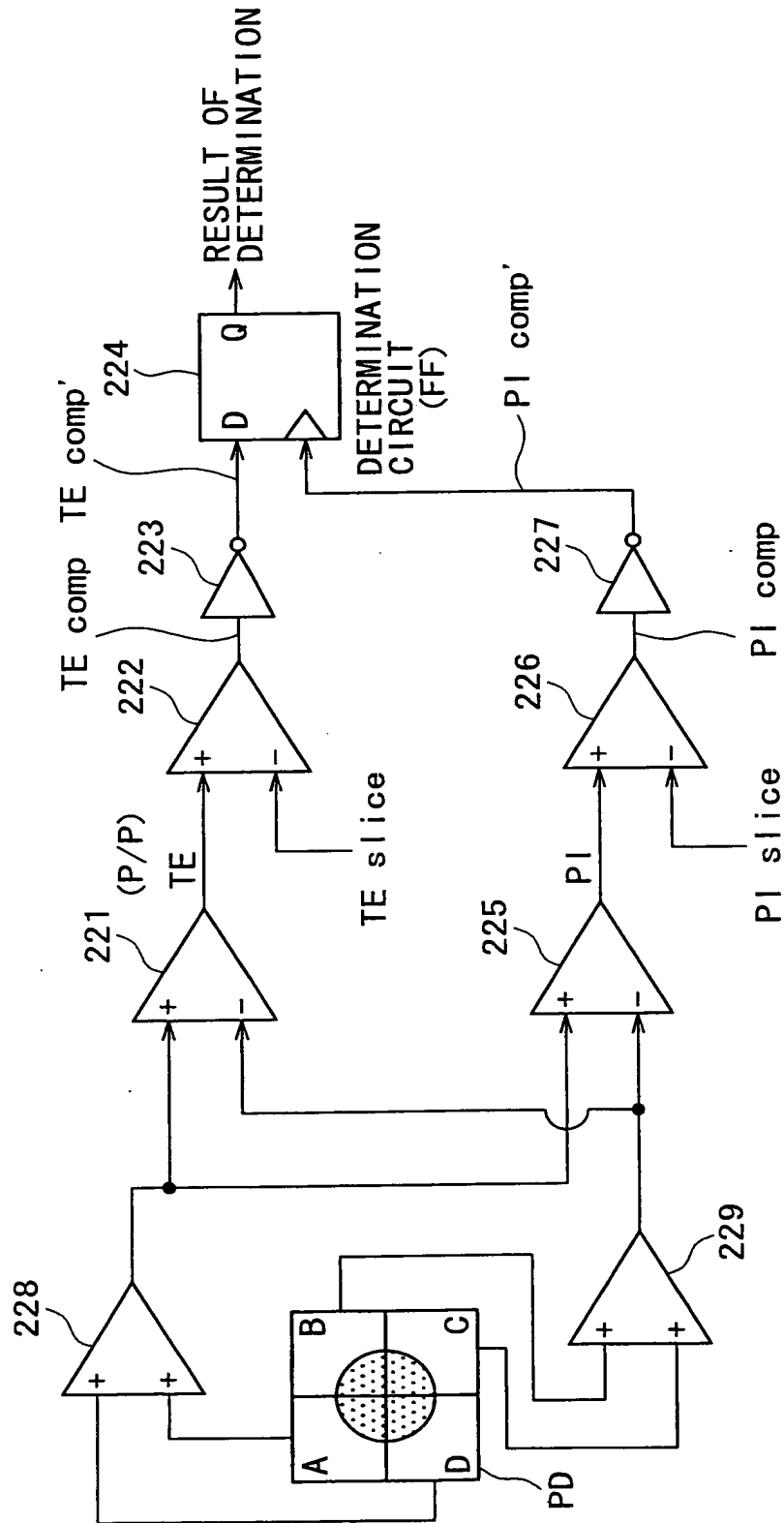


FIG. 15C



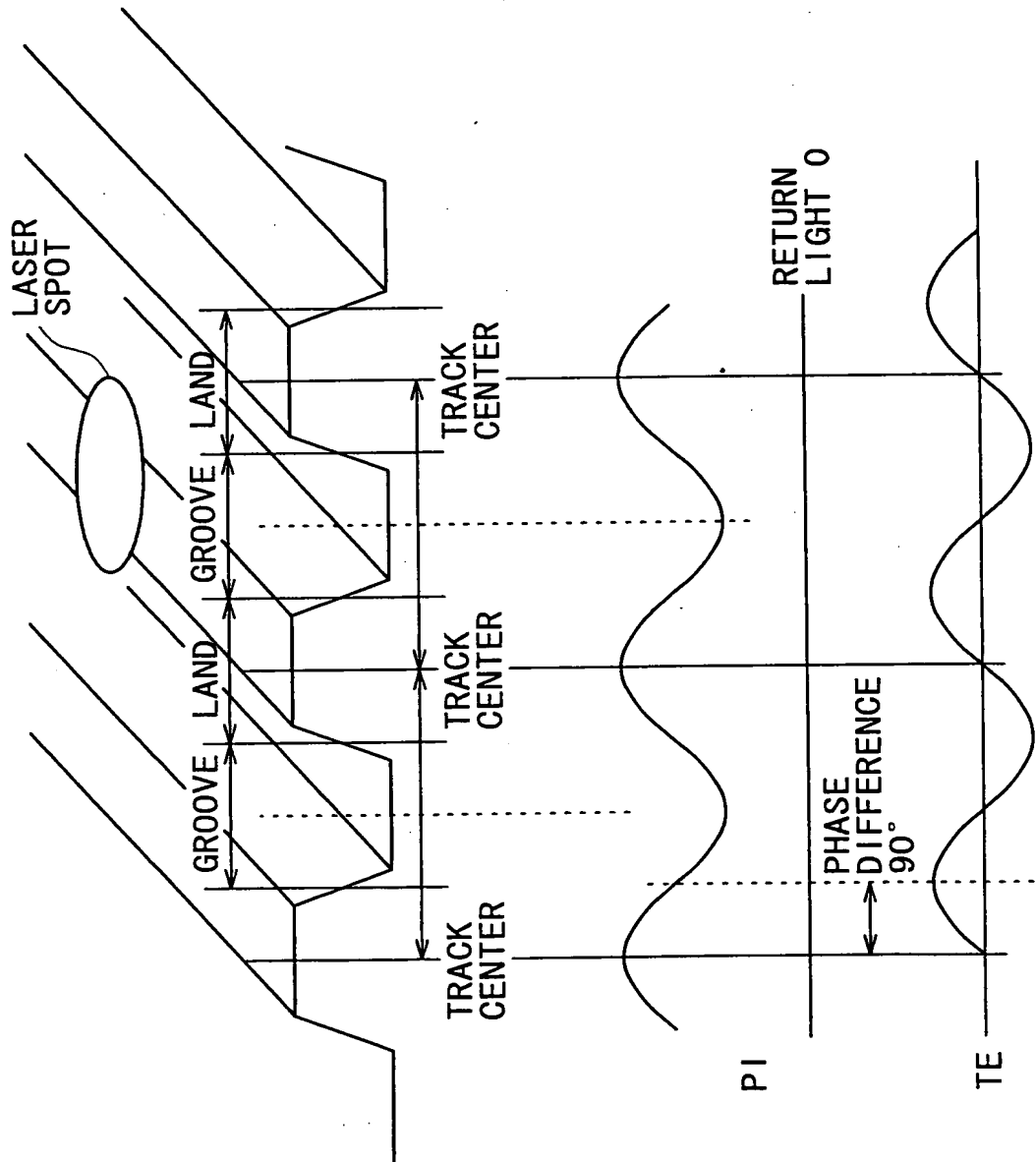
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FIG. 16



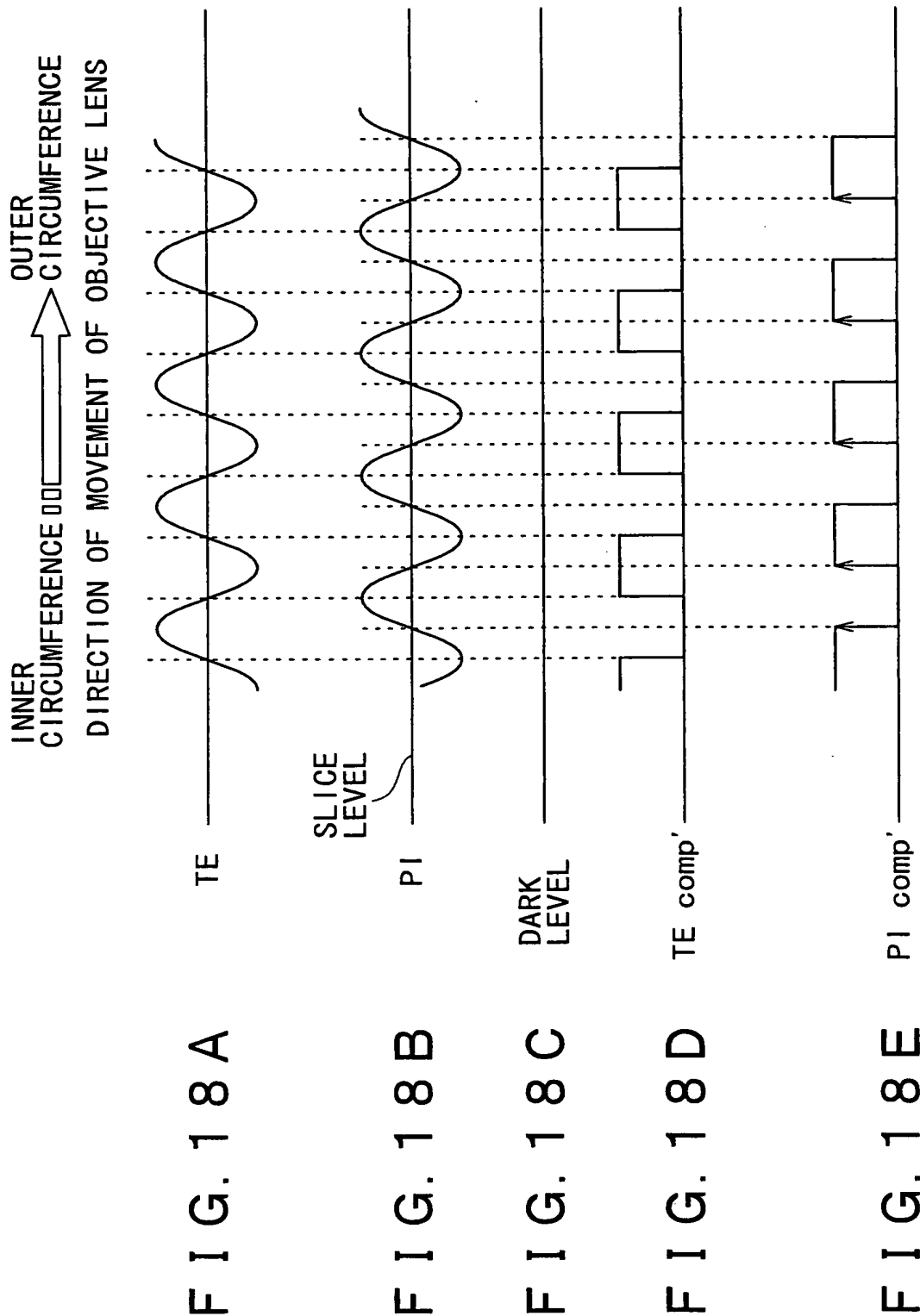
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FIG. 17





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INNER  
CIRCUMFERENCE  $\square\square$   $\longrightarrow$  OUTER  
CIRCUMFERENCE  
DIRECTION OF MOVEMENT OF OBJECTIVE LENS

FIG. 19A

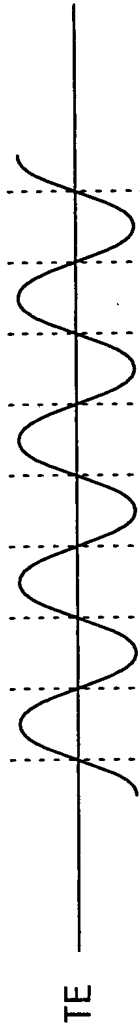


FIG. 19B

SLICE  
LEVEL

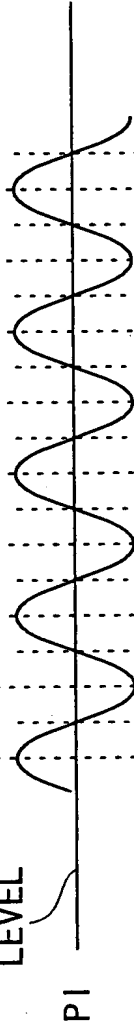


FIG. 19C



FIG. 19D

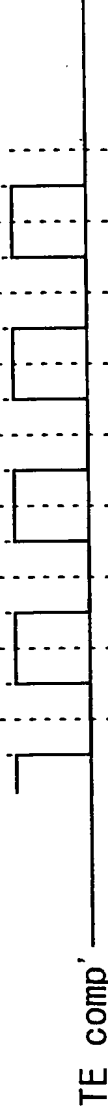
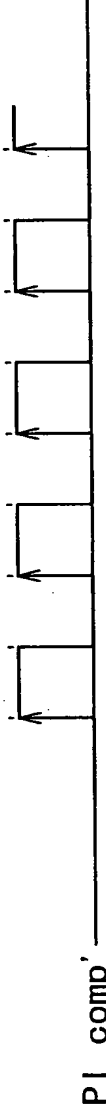
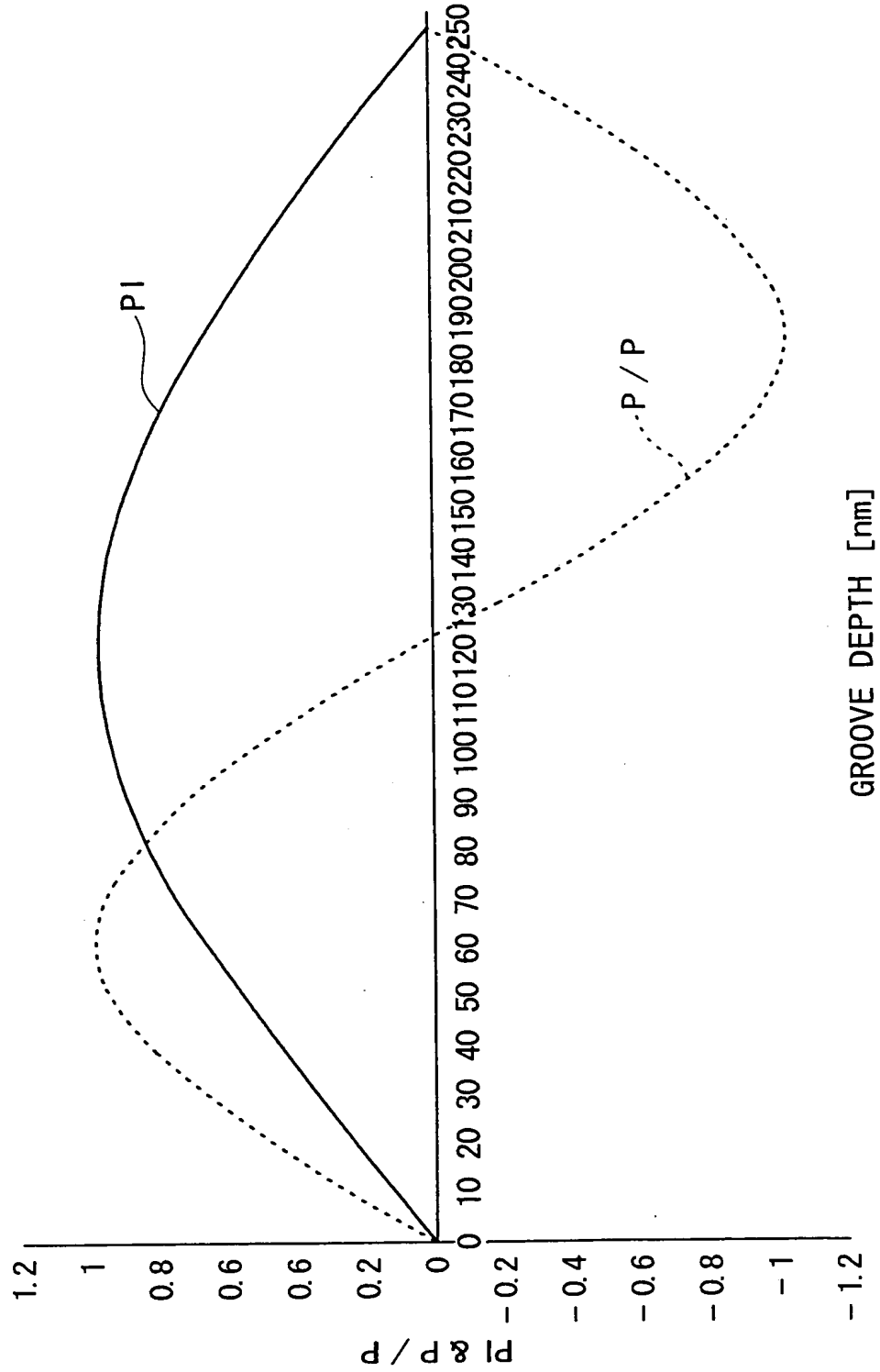


FIG. 19E



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FIG. 20



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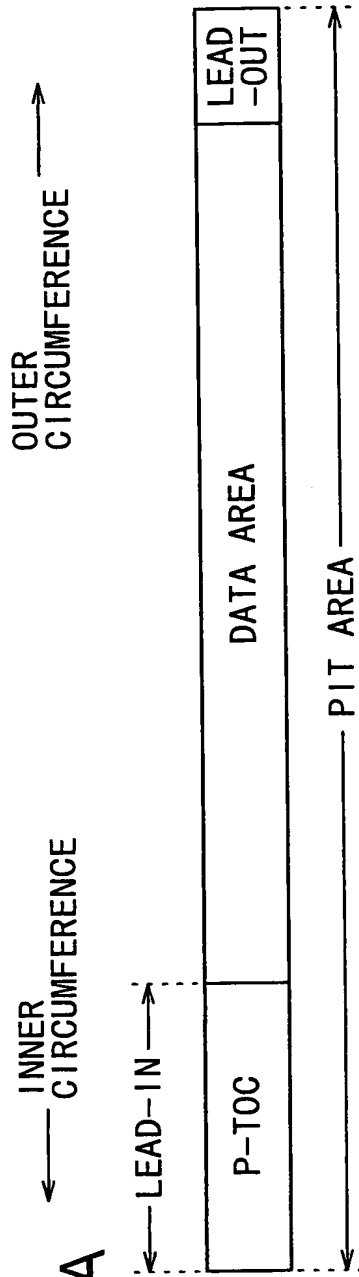


FIG. 21B

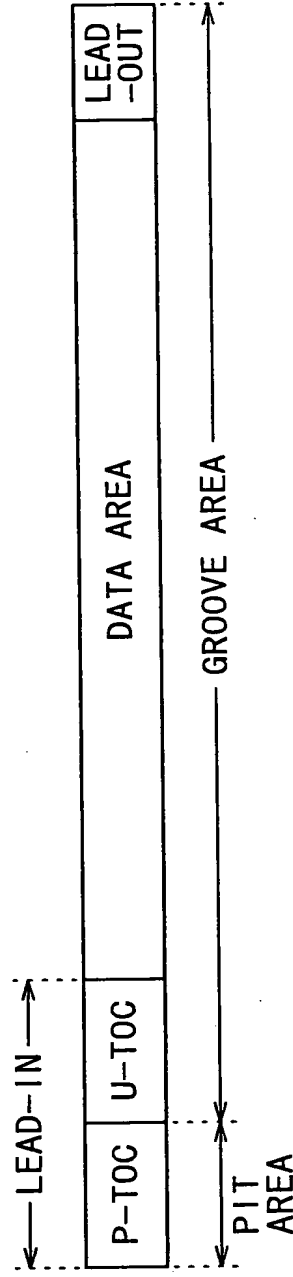
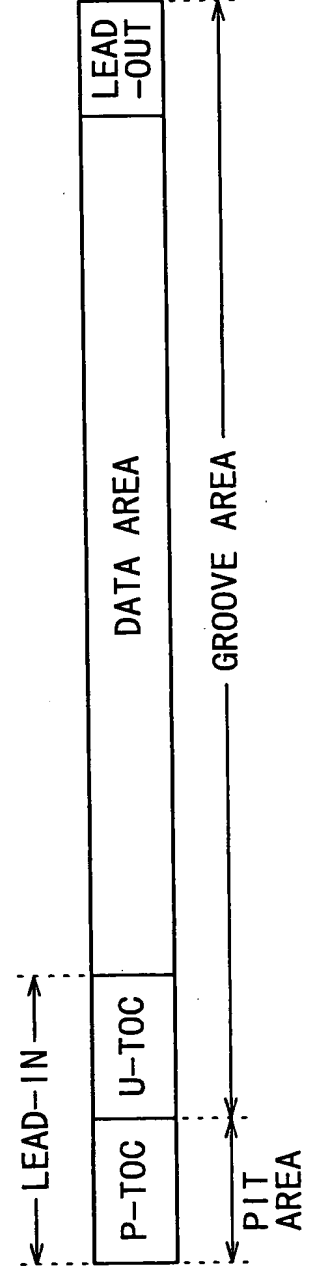


FIG. 21C



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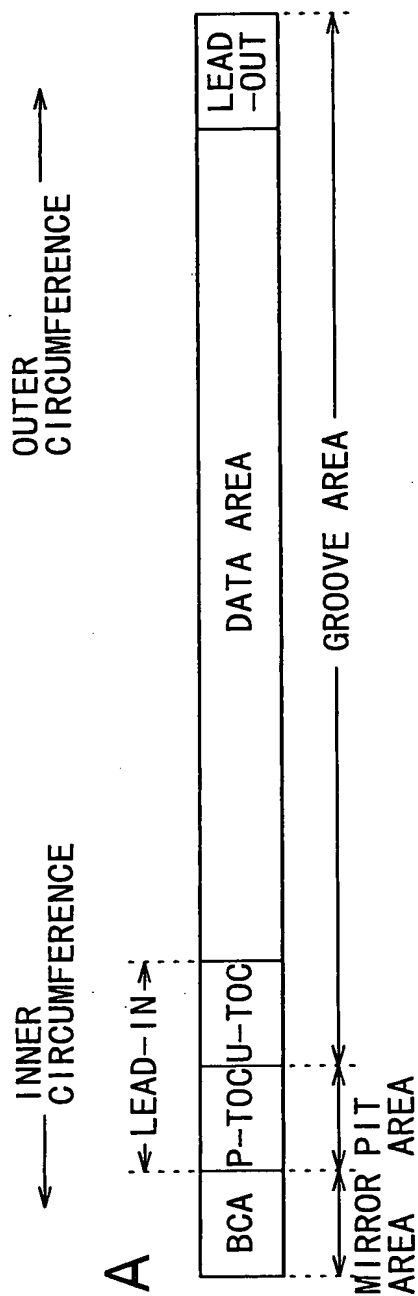


FIG. 22A

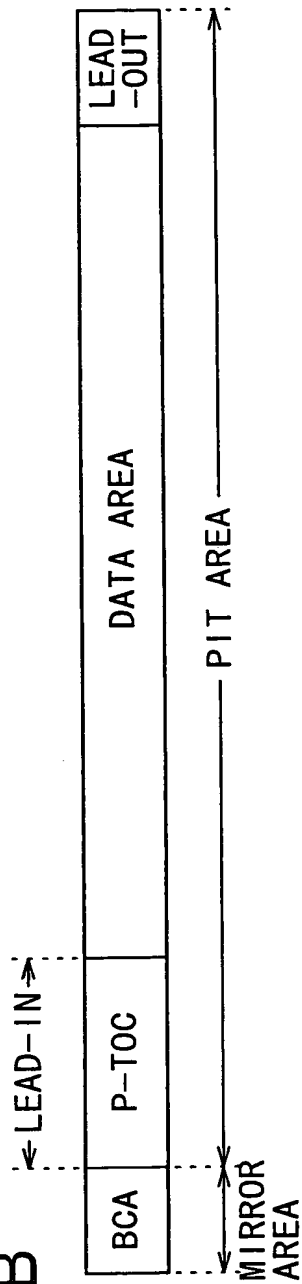


FIG. 22B

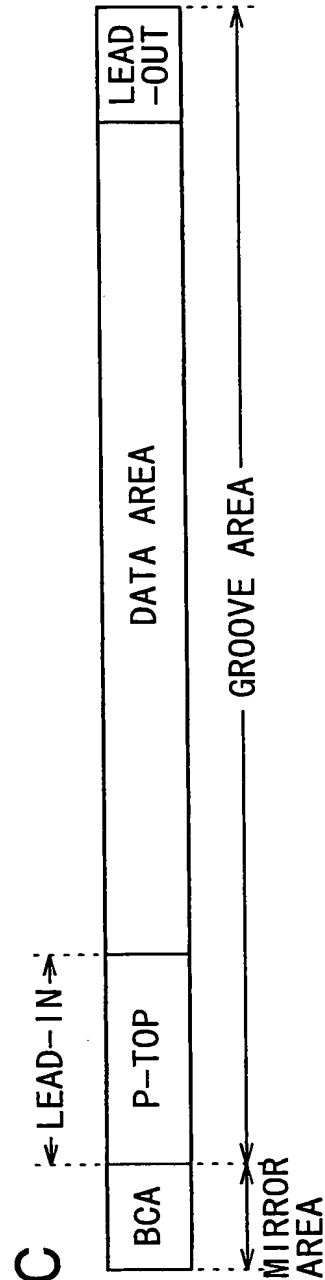


FIG. 22C

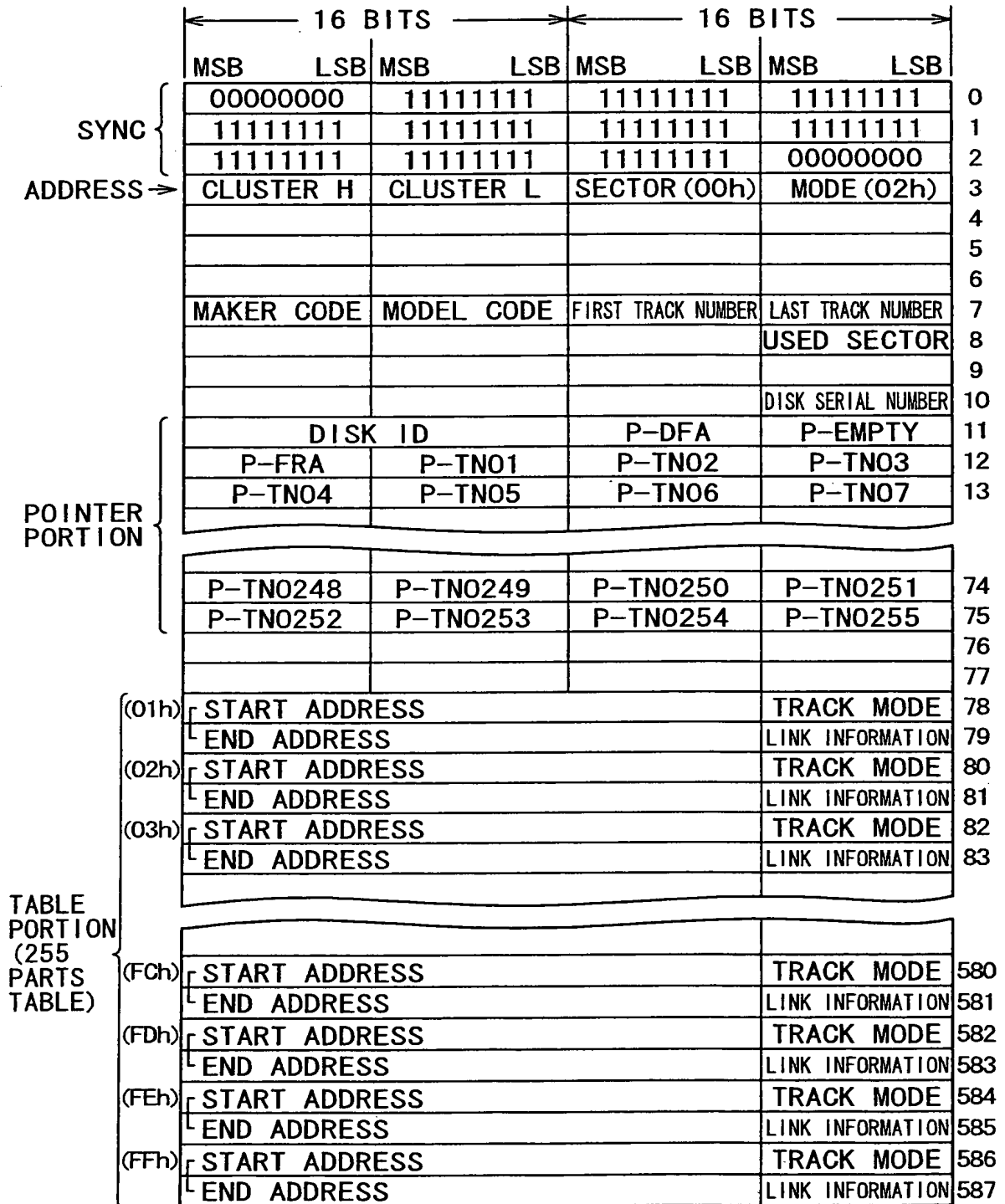
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# FIG. 23

		16 BITS				16 BITS				
		MSB	LSB	MSB	LSB	MSB	LSB	MSB	LSB	
SYNC	{	00000000		11111111		11111111		11111111		0
		11111111		11111111		11111111		11111111		1
		11111111		11111111		11111111		00000000		2
ADDRESS	→	CLUSTER H		CLUSTER L		SECTOR		MODE		3
										4
										5
SYSTEM ID	→	"M"		"I"		"N"		"I"		6
		DISK TYPE		RECORDING POWER		FIRST TRACK NUMBER		LAST TRACK NUMBER		7
		LEAD-OUT START ADDRESS (ROA)						USED SECTOR		8
		POWER CALIBRATION AREA START ADDRESS (PCA)						RECORDING POWER		9
		U-TOC START ADDRESS (USTA)								10
	{	RECORDABLE USER AREA START ADDRESS (RSTA)								11
				P-TN01		P-TN02		P-TN03		12
		P-TN04		P-TN05		P-TN06		P-TN07		13
POINTER PORTION		P-TN0248		P-TN0249		P-TN0250		P-TN0251		74
		P-TN0252		P-TN0253		P-TN0254		P-TN0255		75
										76
										77
TABLE PORTION (255 PARTS TABLE)	(01h)	START ADDRESS						TRACK MODE		78
		END ADDRESS								79
	(02h)	START ADDRESS						TRACK MODE		80
		END ADDRESS								81
	(03h)	START ADDRESS						TRACK MODE		82
		END ADDRESS								83
	(FCh)	START ADDRESS						TRACK MODE		580
		END ADDRESS								581
	(FDh)	START ADDRESS						TRACK MODE		582
		END ADDRESS								583
	(FEh)	START ADDRESS						TRACK MODE		584
END ADDRESS								585		
(FFh)	START ADDRESS						TRACK MODE		586	
	END ADDRESS								587	

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# FIG. 24



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FIG. 25B

FIG. 25A

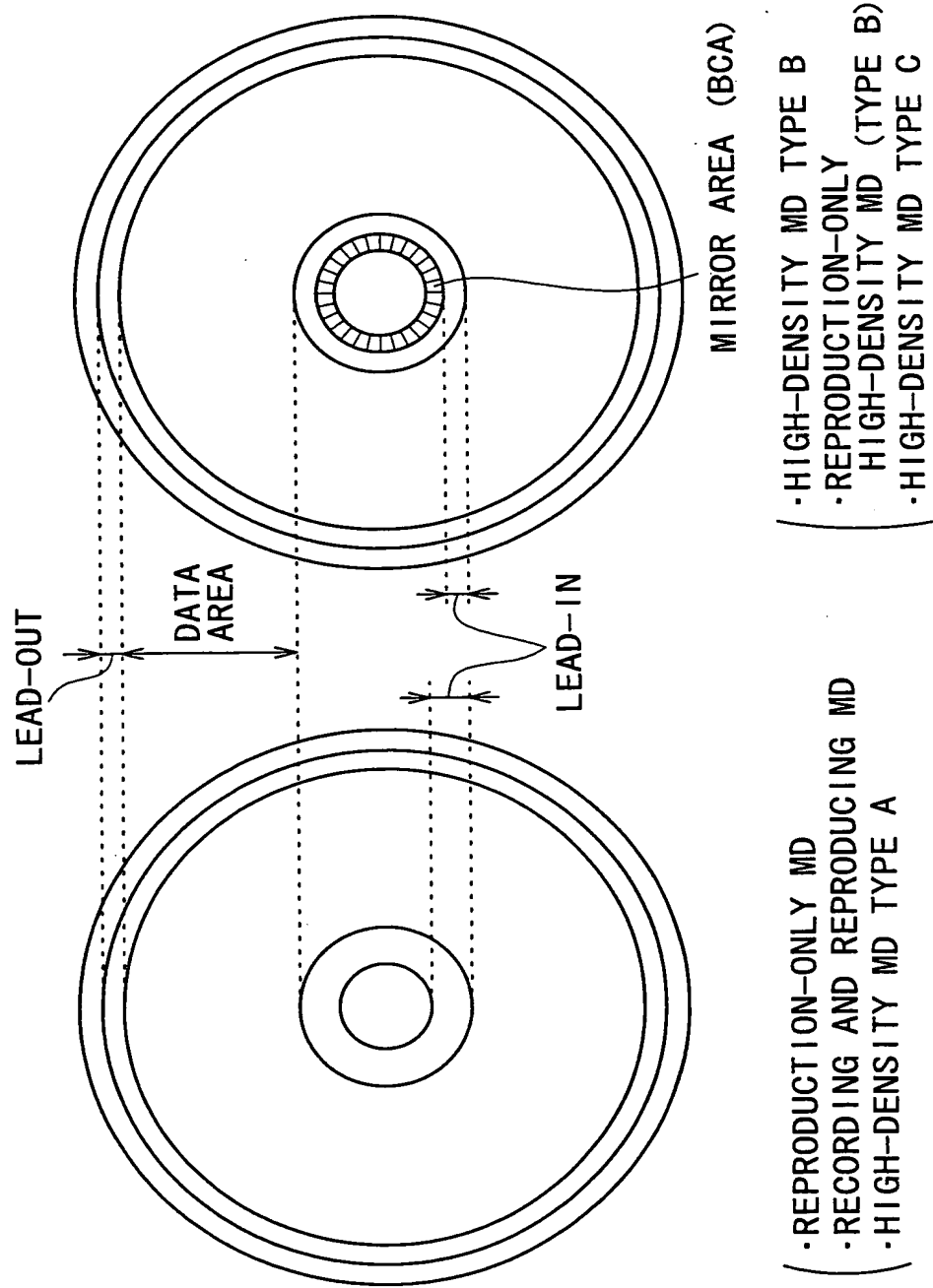




FIG. 26A

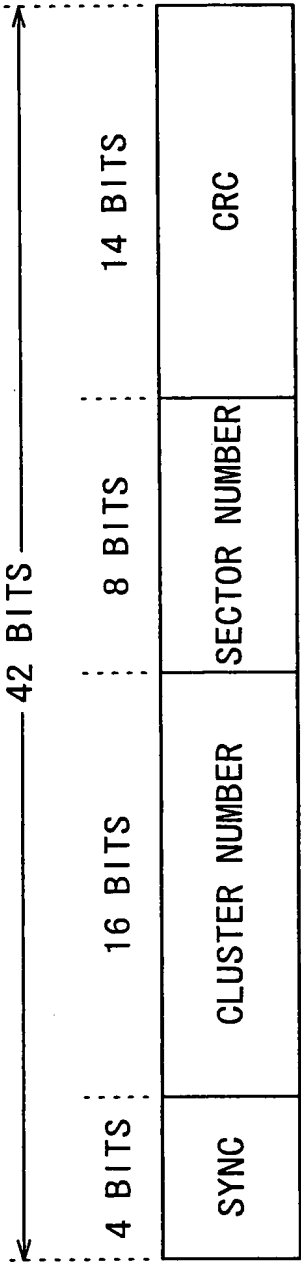
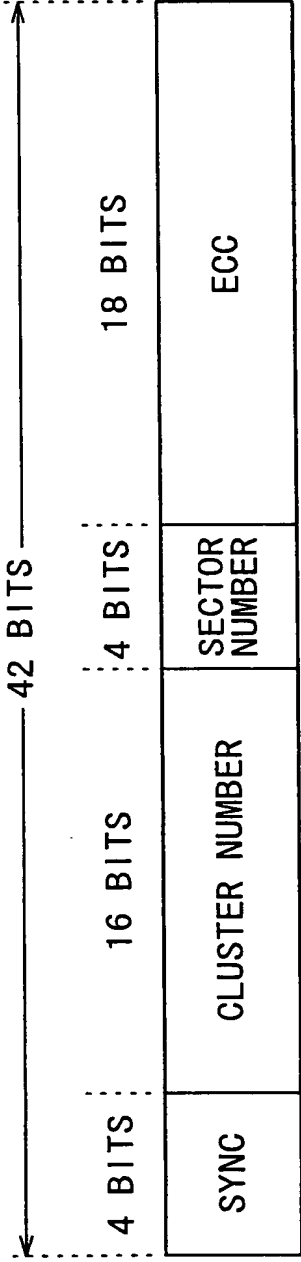
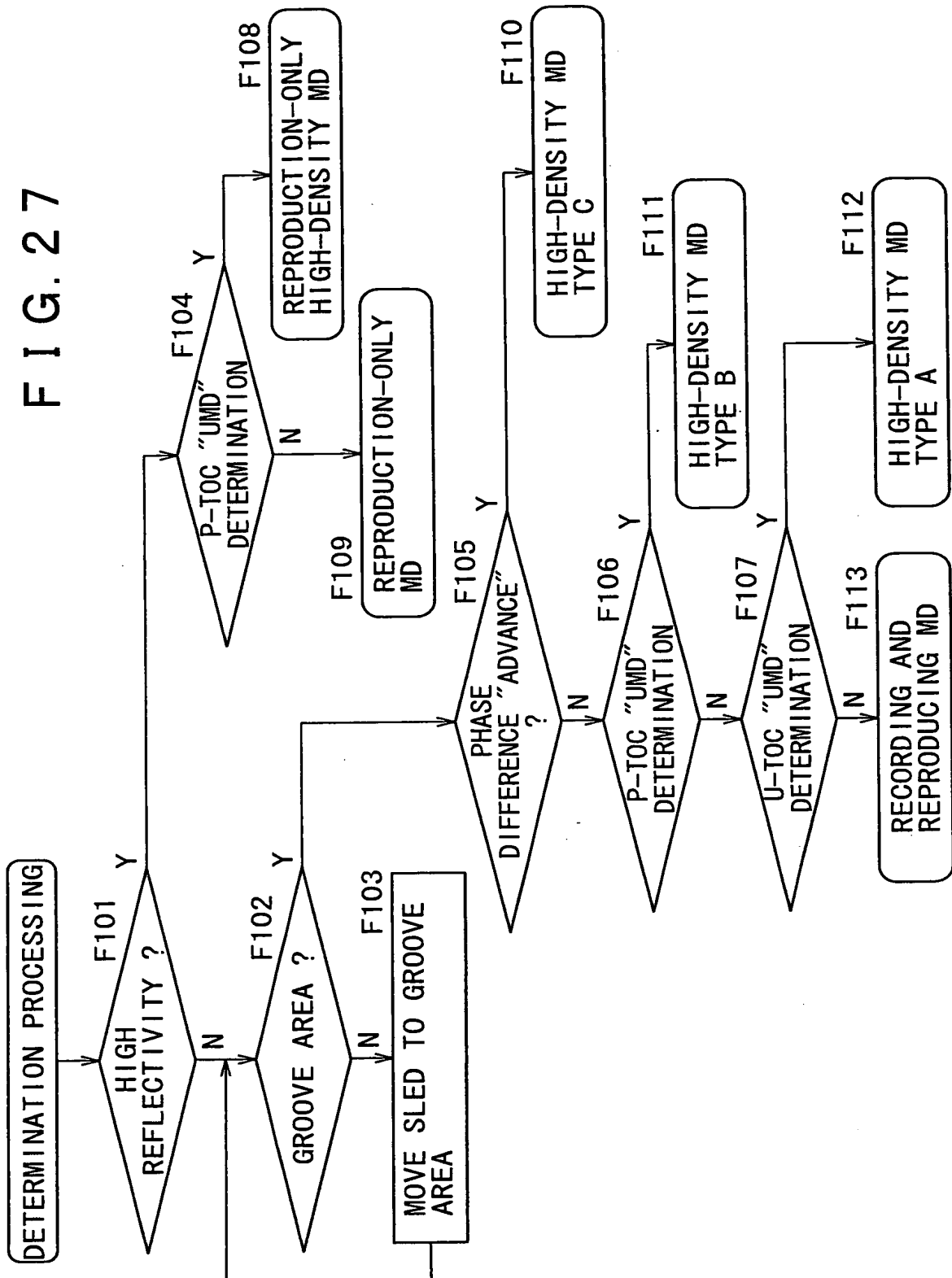


FIG. 26B



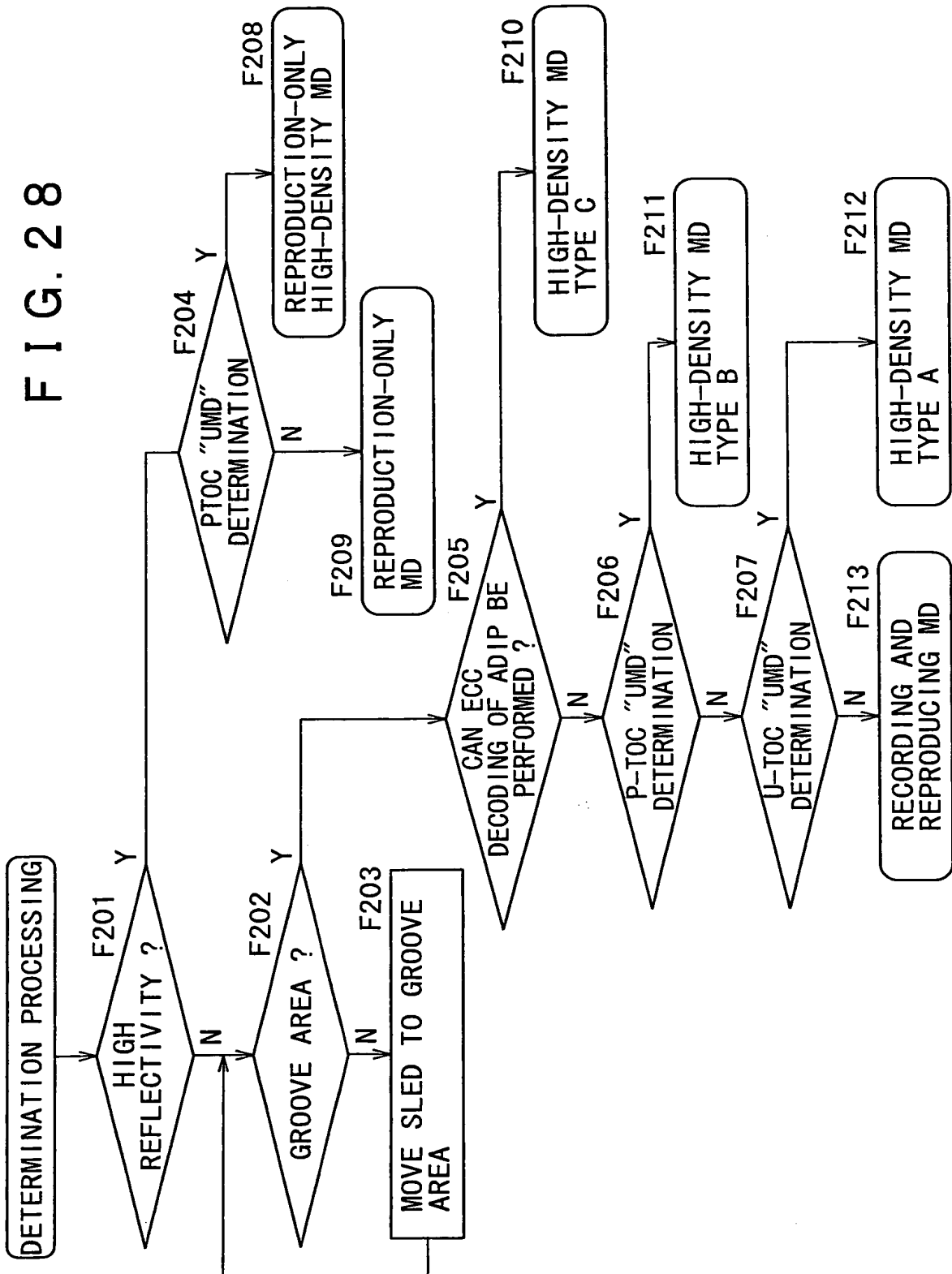
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FIG. 27



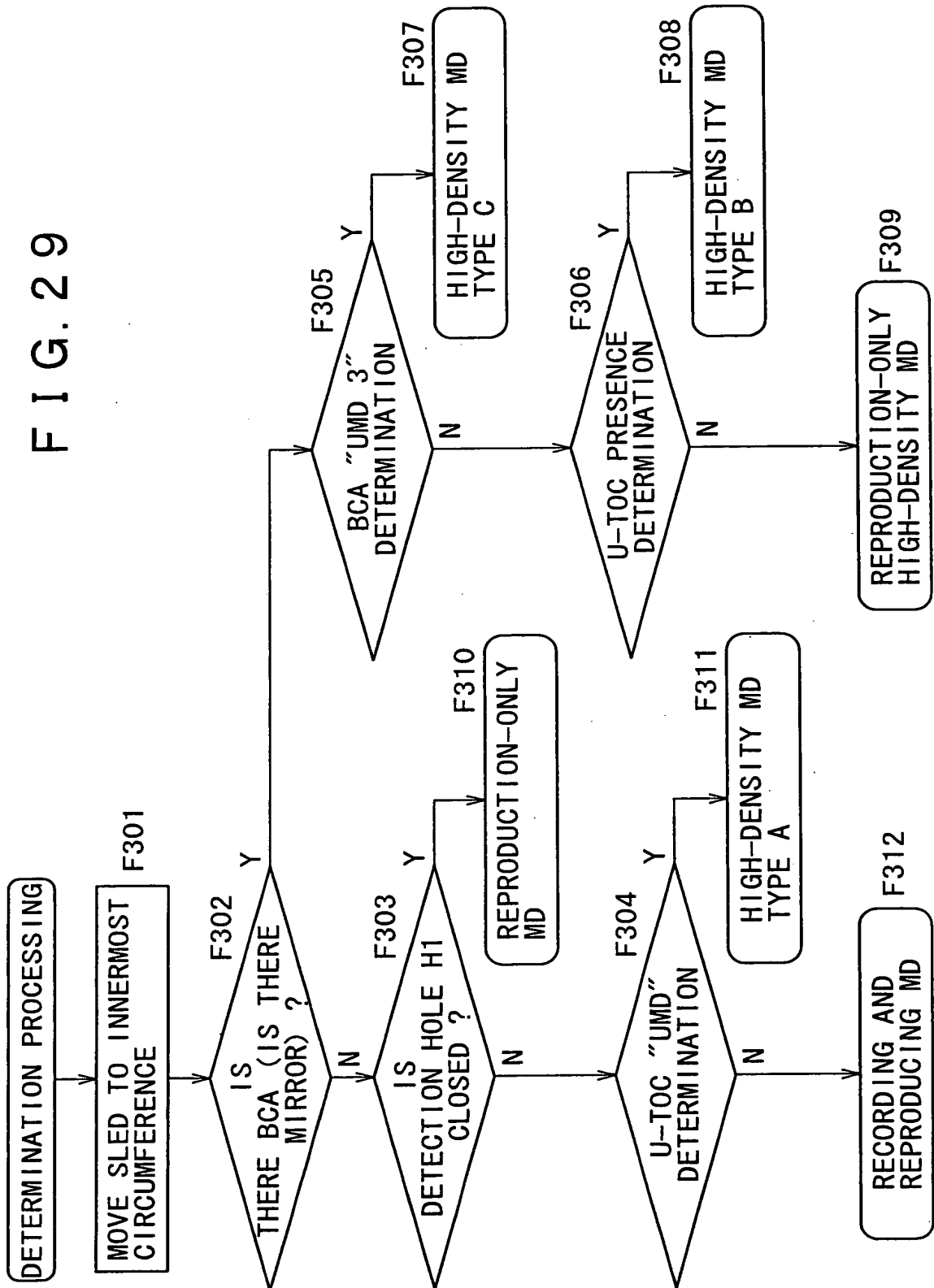
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FIG. 28



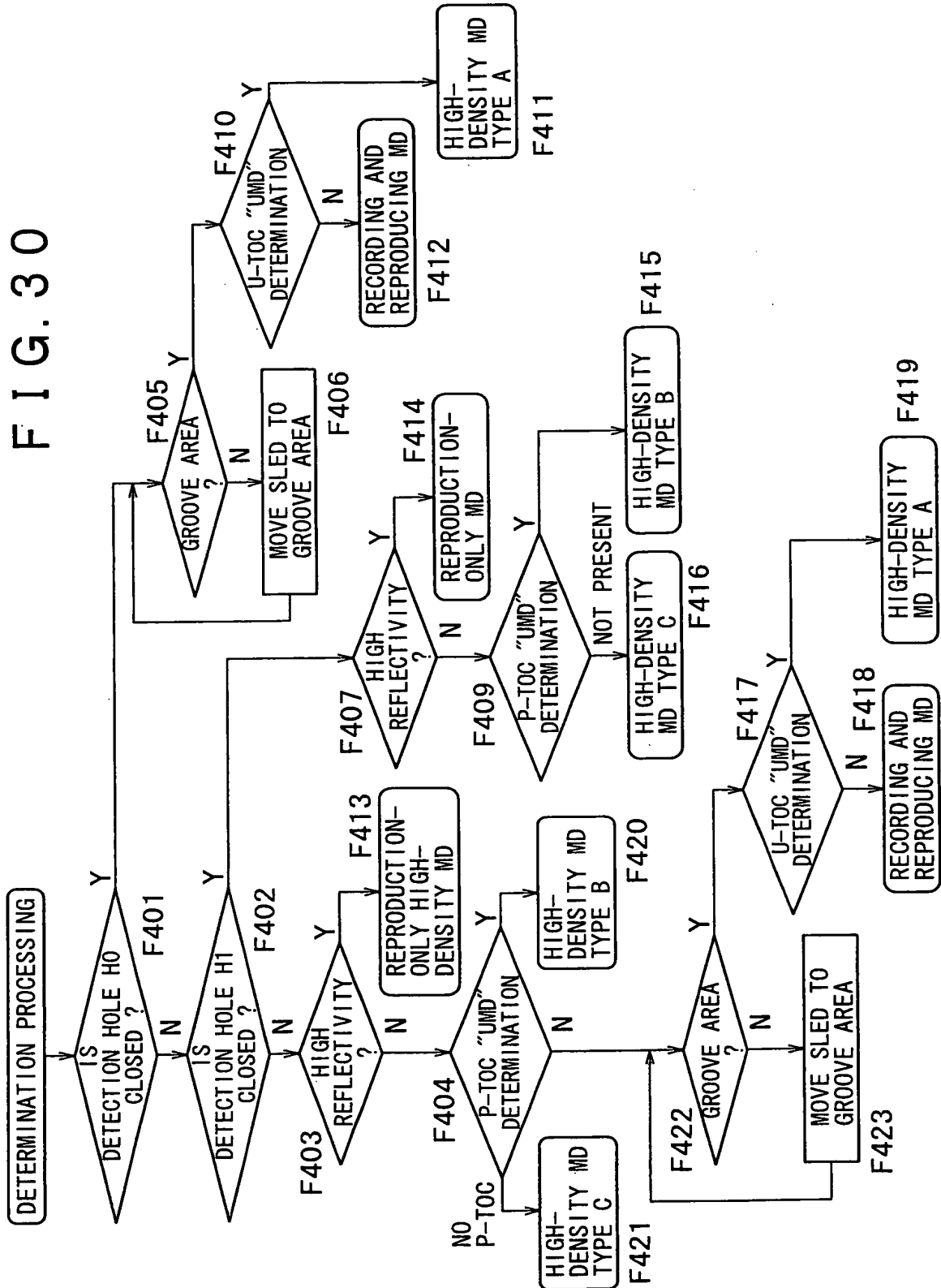
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FIG. 29



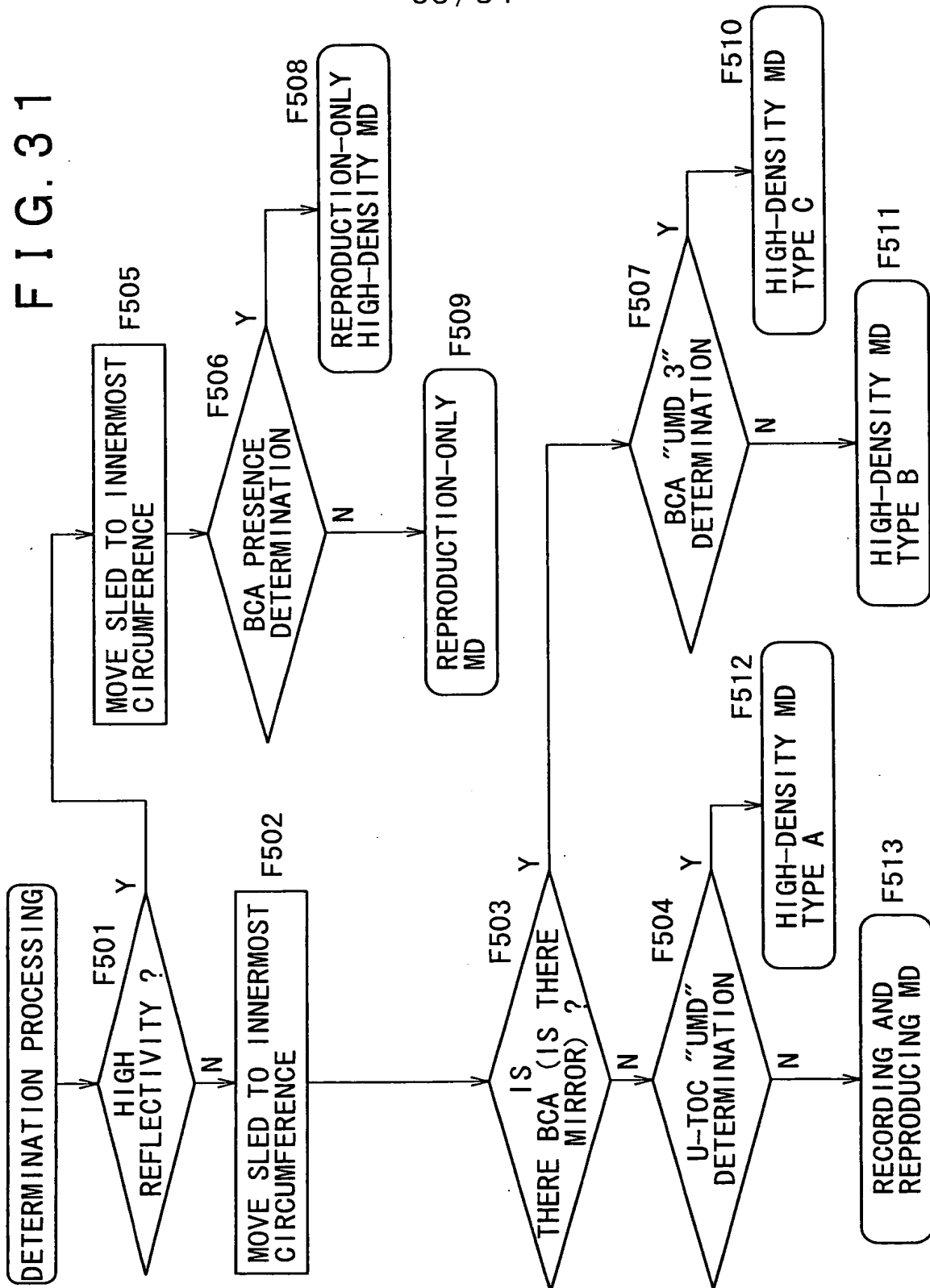
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FIG. 30



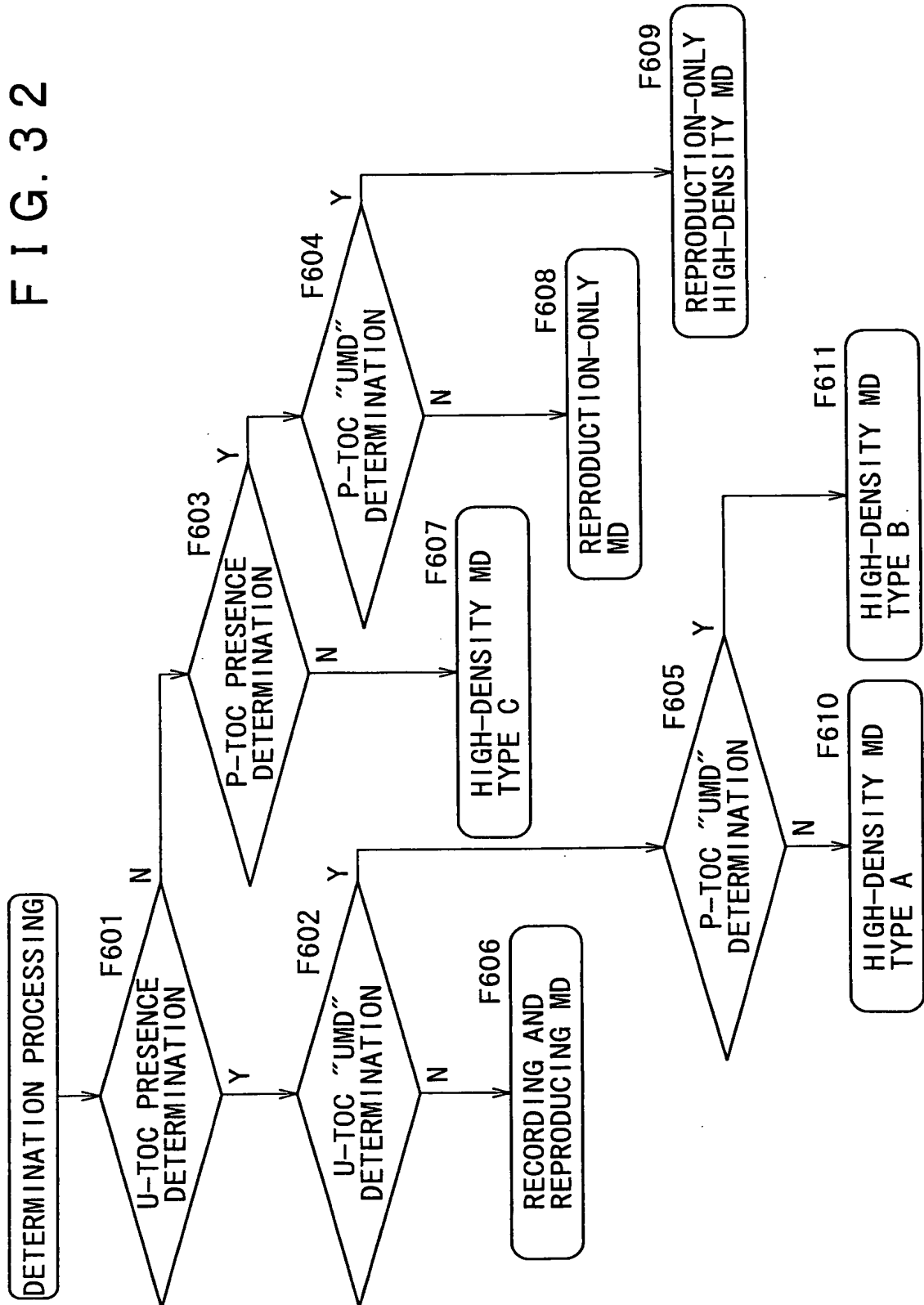
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FIG. 31



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FIG. 32



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# FIG. 33A

○ OPEN    ● CLOSED

DETECTION HOLE MODE	SW0 (WRITE PROTECT)	SW1 (REFLECTIVITY)	
MODE 0	○	○	RECORDING AND REPRODUCING MD HIGH-DENSITY MD TYPE A } WRITING DISABLED
MODE 1	○	●	REPRODUCTION-ONLY DISK
MODE 2	●	○	RECORDING AND REPRODUCING MD HIGH-DENSITY MD TYPE A } WRITING ENABLED
MODE 3	●	●	IMPOSSIBLE

# FIG. 33B

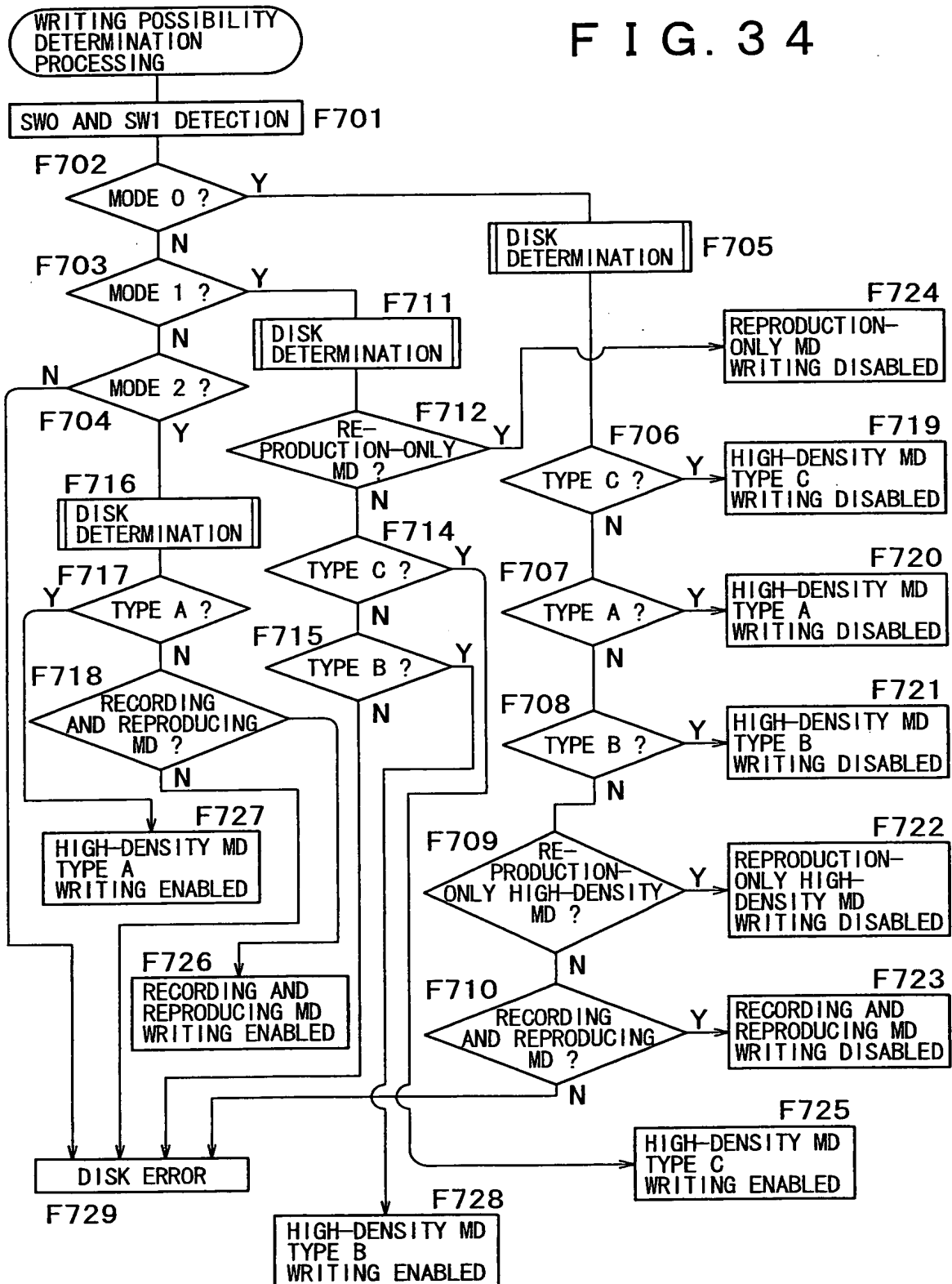
○ OPEN    ● CLOSED

DETECTION HOLE MODE	SW0 (ALWAYS OPEN)	SW1 (WRITE PROTECT)	
MODE 0	○	○	WRITING DISABLED
MODE 1	○	●	WRITING ENABLED
MODE 2	●	○	IMPOSSIBLE
MODE 3	●	●	IMPOSSIBLE



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# FIG. 34



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FIG. 35

